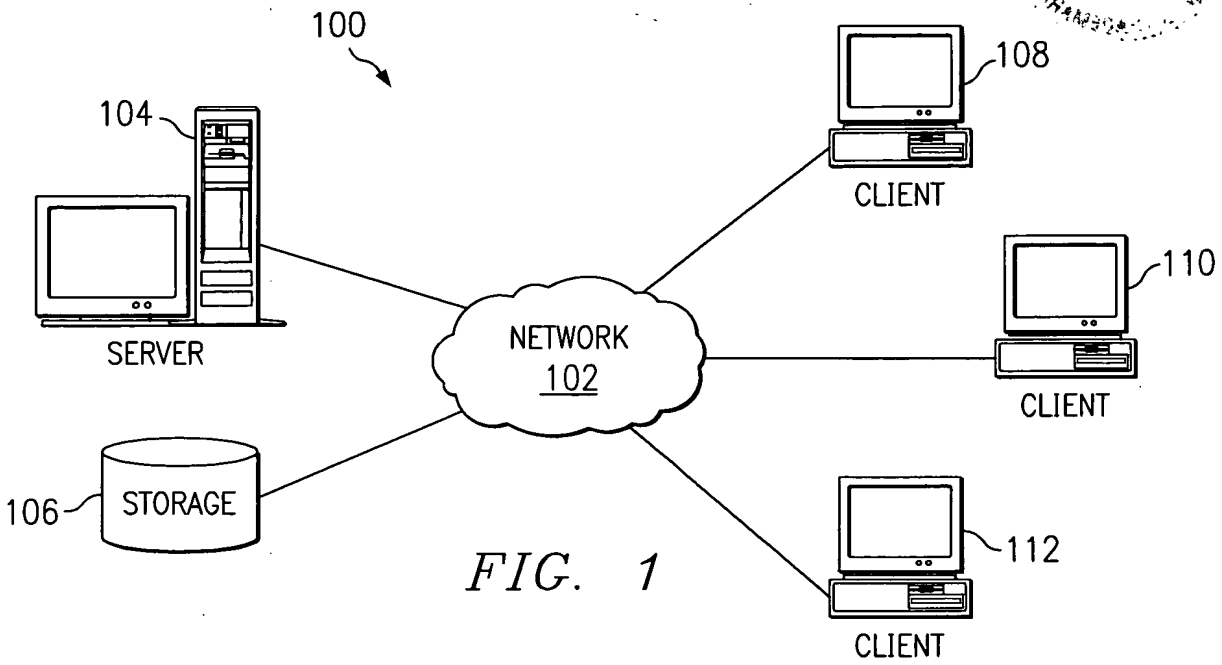

100
104
SERVER
108
CLIENT
110
CLIENT
NETWORK
102
106
STORAGE
112
CLIENT

FIG. 1

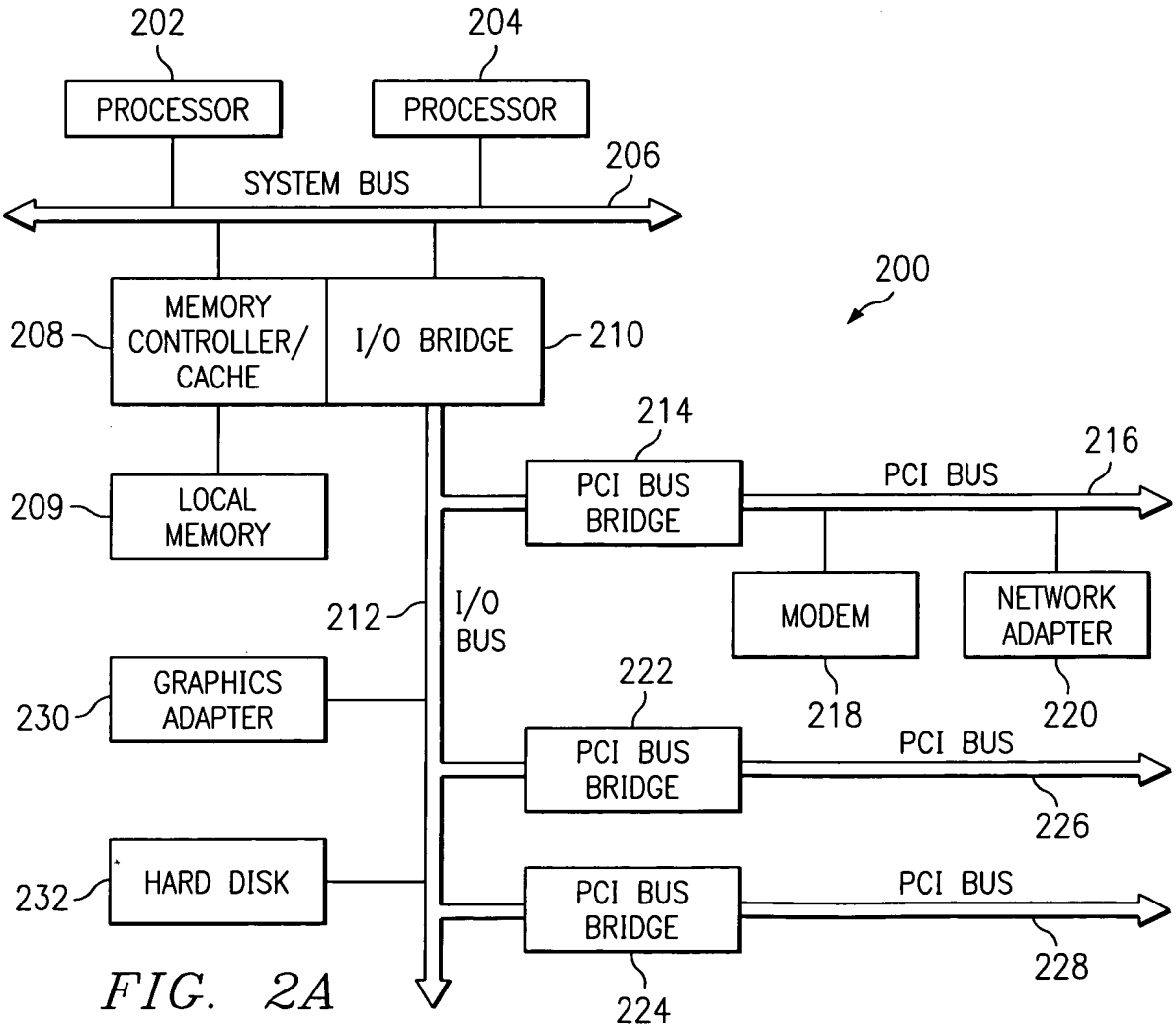

202
PROCESSOR
204
PROCESSOR
206
SYSTEM BUS
200
208
MEMORY CONTROLLER/ CACHE
I/O BRIDGE
210
214
PCI BUS BRIDGE
216
PCI BUS
209
LOCAL MEMORY
212
I/O BUS
MODEM
NETWORK ADAPTER
218
220
222
230
GRAPHICS ADAPTER
PCI BUS BRIDGE
PCI BUS
226
232
HARD DISK
PCI BUS BRIDGE
PCI BUS
228
224

FIG. 2A

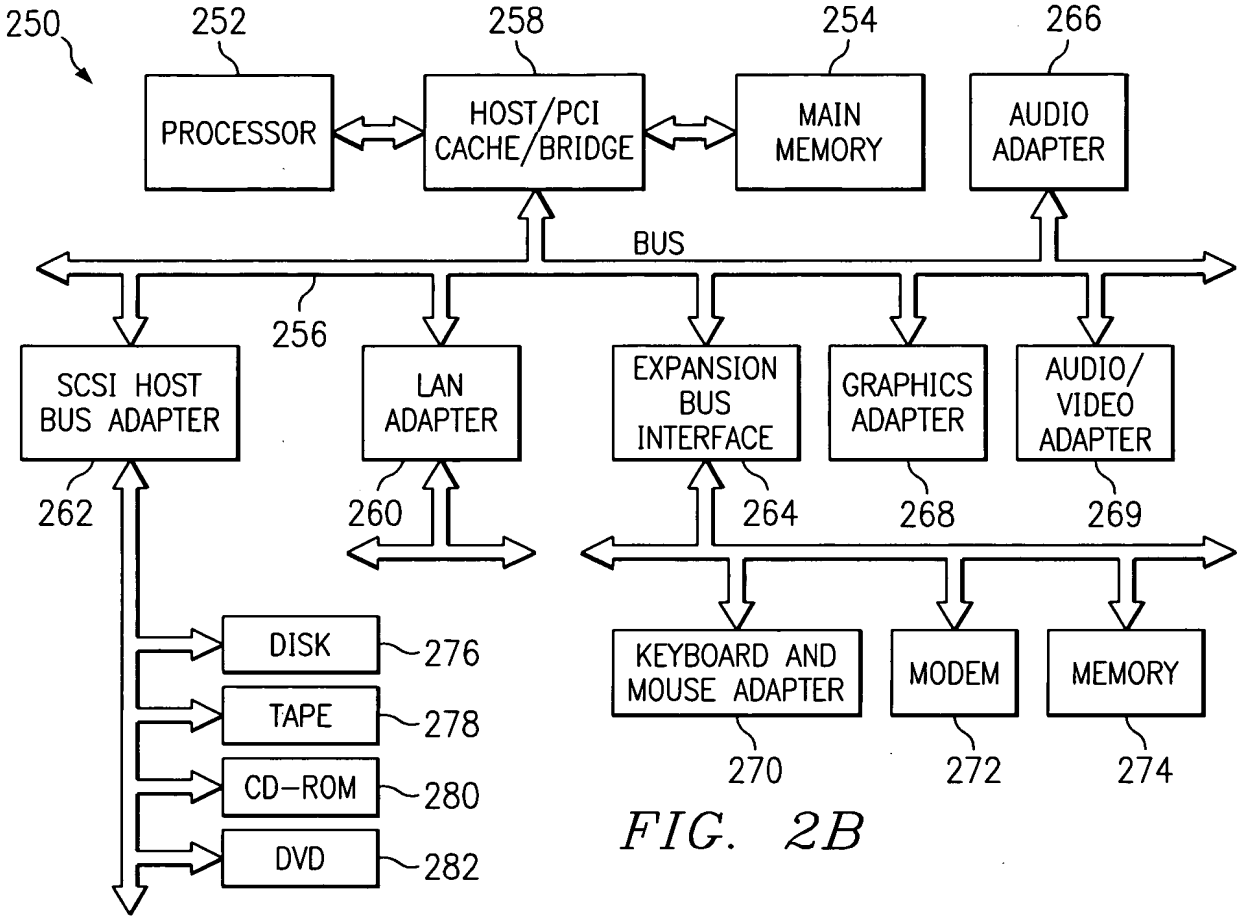
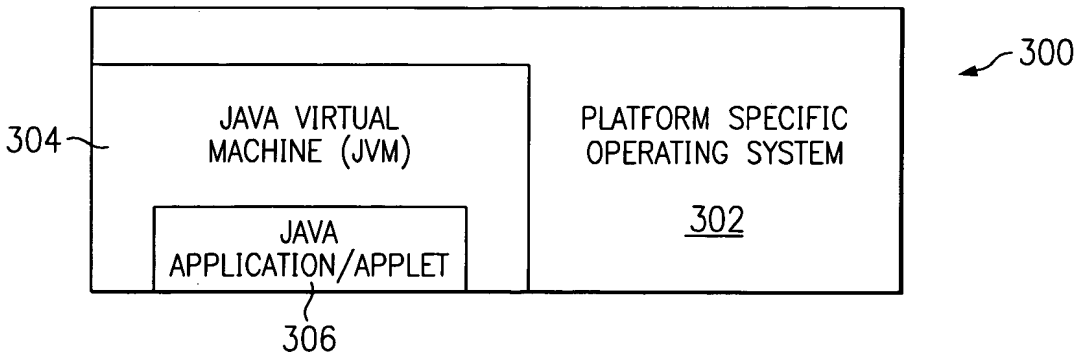

250
252
258
254
266
PROCESSOR
HOST/PCI CACHE/BRIDGE
MAIN MEMORY
AUDIO ADAPTER
BUS
256
SCSI HOST BUS ADAPTER
LAN ADAPTER
EXPANSION BUS INTERFACE
GRAPHICS ADAPTER
AUDIO/ VIDEO ADAPTER
262
260
264
268
269
DISK
276
TAPE
278
CD-ROM
280
DVD
282
KEYBOARD AND MOUSE ADAPTER
MODEM
MEMORY
270
272
274

FIG. 2B

FIG. 3A


300
304
JAVA VIRTUAL MACHINE (JVM)
JAVA APPLICATION/APPLET
306
PLATFORM SPECIFIC OPERATING SYSTEM
302

OIPE JC26
MAR 1 2 2004
PATENT & TRADEMARK OFFICE

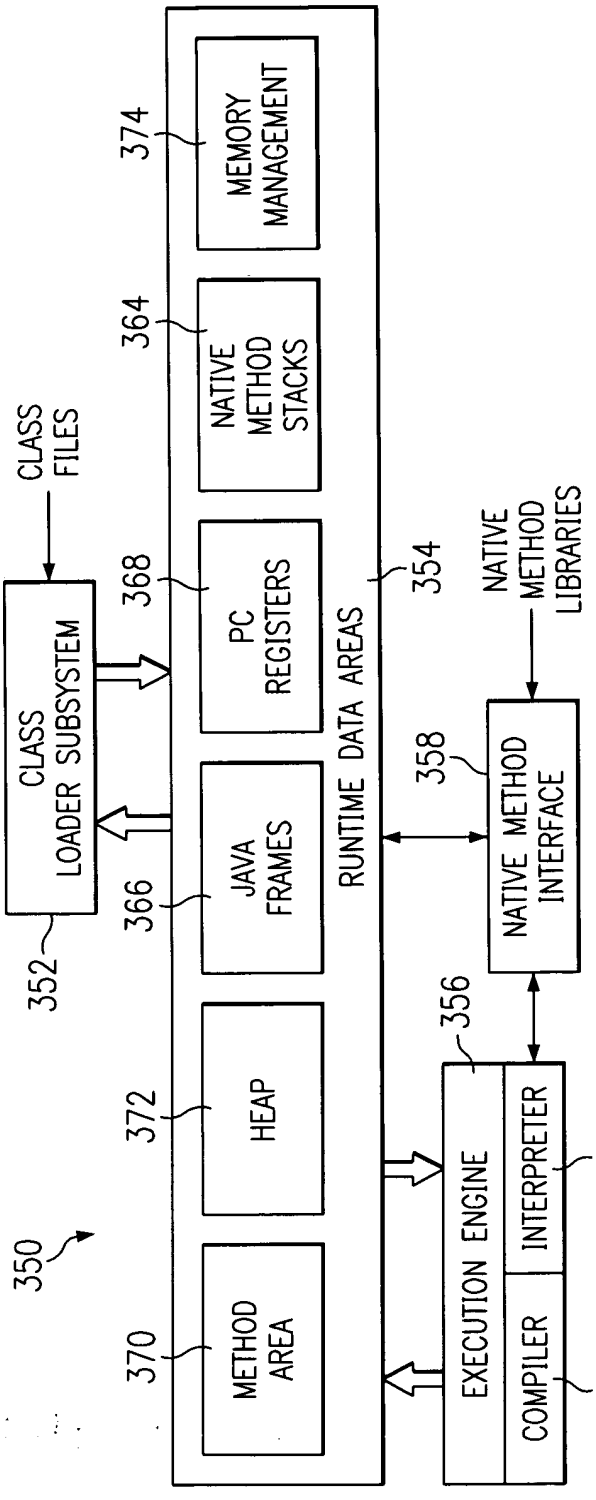


FIG. 3B

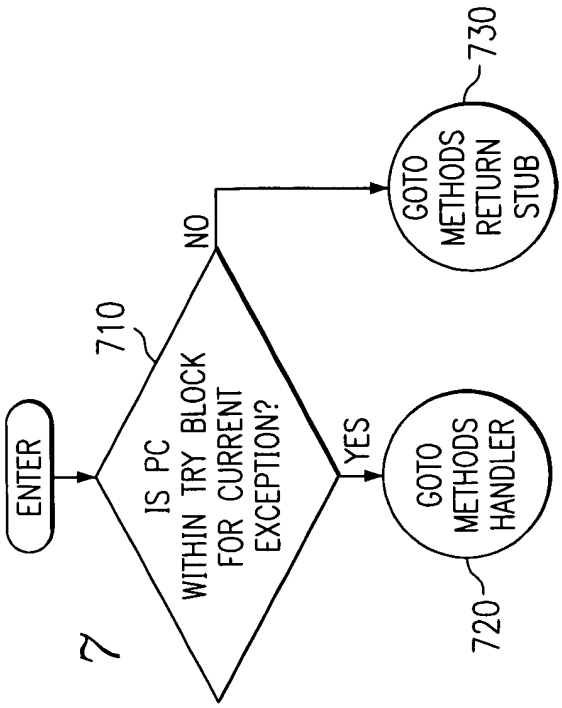


FIG. 7

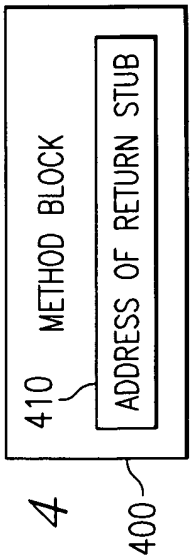


FIG. 4

FIG. 5

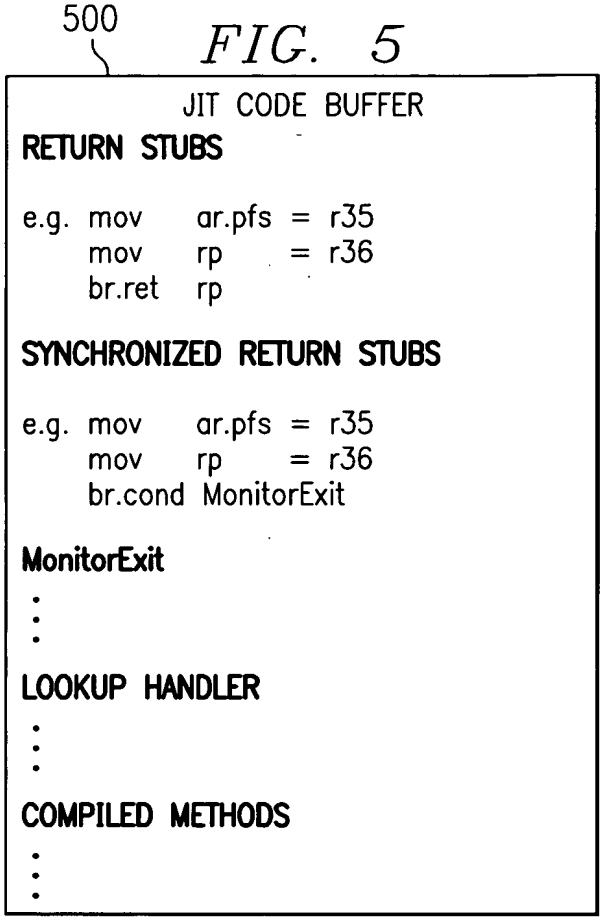
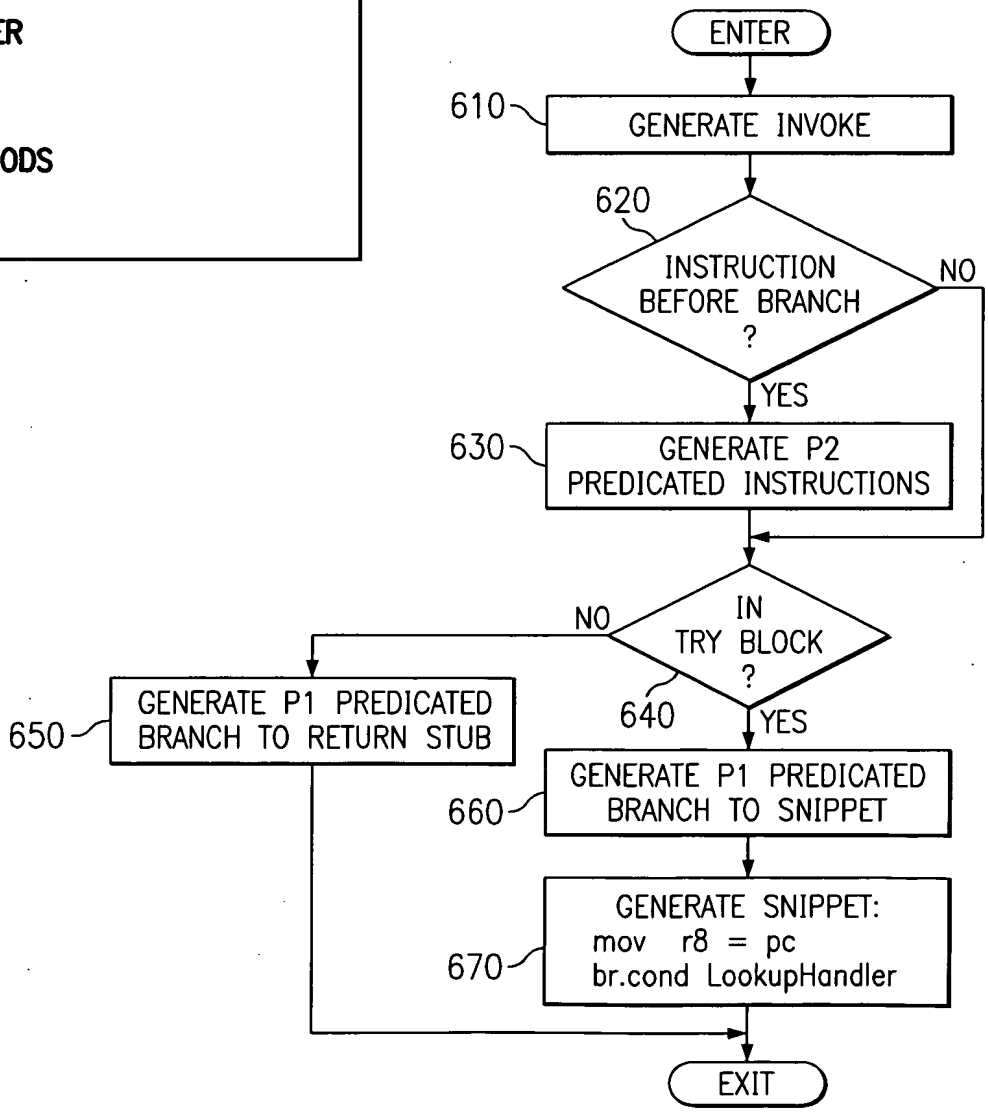

500
JIT CODE BUFFER
RETURN STUBS
e.g. mov ar.pfs = r35
mov rp = r36
br.ret rp
SYNCHRONIZED RETURN STUBS
e.g. mov ar.pfs = r35
mov rp = r36
br.cond MonitorExit
MonitorExit
LOOKUP HANDLER
COMPILED METHODS

FIG. 6


ENTER
610
GENERATE INVOKE
620
INSTRUCTION BEFORE BRANCH ?
NO
YES
630
GENERATE P2 PREDICATED INSTRUCTIONS
IN TRY BLOCK ?
NO
640
YES
650
GENERATE P1 PREDICATED BRANCH TO RETURN STUB
660
GENERATE P1 PREDICATED BRANCH TO SNIPPET
670
GENERATE SNIPPET:
mov r8 = pc
br.cond LookupHandler
EXIT